WHAT IS CLAIMED IS:

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1. A negative pressure producing fiber body for use in a container for containing a liquid, which is to be supplied to a liquid ejecting head for ejecting the liquid for recording, in a manner that allows the liquid to be supplied, comprising an olefin resin at least on the fiber surface thereof, said olefin resin having a lyophilic group in an oriented state on the surface thereof.

2. A fiber body for use in a container for containing a water-based liquid, which is to be supplied to a liquid ejecting head for ejecting the water-based liquid for recording, in a manner that allows the water-based liquid to be supplied, consisting of a fiber provided with a polymer at least part of its surface,

said polymer including a first portion having a hydrophilic group and a second portion having a group of which interfacial energy is lower than that of said hydrophilic group and almost the same as the surface energy of said part of the surface,

said second portion being oriented toward said part of the surface, said first portion being oriented in the direction different from said part of the surface.

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3. The fiber body according to claim 2, wherein the surface of said fiber consists of an olefin resin and said polymer is polyalkylsiloxane including a hydrophilic group.

4. The fiber body according to claim 3, wherein said hydrophilic group has a polyalkylene oxide chain.

5. The fiber body according to claim 3, wherein said olefin resin is polypropylene or polyethylene and said polyalkylsiloxane is polyoxyalkylene-dimethylpolysiloxane.

6. A liquid container containing the fiber body according to any one of claims 2 to 5 as a negative pressure generating member.

7. A liquid container comprising a negative pressure generating member containing portion for containing the fiber body according to any one of claims 2 to 5 as a negative pressure generating member and a liquid containing portion for supplying liquid to said negative pressure generating member containing portion, said liquid containing portion and said negative pressure generating member containing portion constituting an integrally or removably formed unit.

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8. The liquid container according to claim 7, comprising an inner bag for containing liquid, which becomes deformed as the liquid contained therein becomes led out and thereby can produce a negative pressure, a casing for covering said inner bag, and an atmosphere communication port which can introduce atmosphere between said casing and said inner bag.

9. A liquid container comprising a supply opening for supplying liquid to a liquid ejecting head and an atmosphere communication port for allowing the interior thereof to communicate with the atmosphere and containing a negative pressure generating member, wherein the fiber body according to claim 2 is arranged in the interior portion of said supply opening.

10. A liquid container comprising a supply opening for supplying liquid to a liquid ejecting head and an atmosphere communication port for allowing the interior thereof to communicate with the atmosphere and containing a fiber body as a negative pressure generating member, wherein said fiber body has been partially subjected to surface treatment of giving lyophilic nature thereto only on the portion corresponding to said supply opening and on the periphery portion thereof.

11. A liquid container comprising a negative pressure generating member containing portion for containing a fiber body as a negative pressure generating member, an atmosphere communication port for allowing the interior of said negative pressure generating member containing portion to communicate with the atmosphere, a supply opening for supplying the liquid held by said fiber body to a liquid ejecting head and a liquid containing portion for leading out the liquid to said negative pressure generating member containing portion, said liquid containing portion and said negative pressure generating member containing portion constituting an integrally or removably formed unit, wherein said fiber body is partially subjected to surface treatment of giving lyophilic nature thereto only on the portion corresponding to said supply opening and on the periphery portion thereof.

12. A liquid container comprising a negative pressure generating member containing portion for containing a fiber body as a negative pressure generating member, an atmosphere communication port for allowing the interior of said negative pressure generating member containing portion to communicate with the atmosphere, a supply opening for supplying the liquid held by said fiber body to a liquid ejecting head and a liquid containing portion for leading out

the liquid to said negative pressure generating member containing portion, said liquid containing portion and said negative pressure generating member containing portion constituting an integrally or removably formed unit, wherein said fiber body is partially subjected to surface treatment of giving lyophilic nature thereto only on the periphery of the planar layer existing over the portion where the above negative pressure generating member containing portion communicates with the above liquid containing portion and intersecting the gravity direction.

13. A liquid container comprising a negative pressure generating member containing portion for containing a fiber body as a negative pressure generating member, an atmosphere communication port for allowing the interior of said negative pressure generating member containing portion to communicate with the atmosphere, a supply opening for supplying the liquid held by said fiber body to a liquid ejecting head and a liquid containing portion for leading out the liquid to said negative pressure generating member containing portion, said liquid containing portion and said negative pressure generating member containing portion constituting an integrally or removably formed unit, wherein said fiber body is partially subjected to surface treatment of giving lyophilic nature thereto at

least on the liquid supplying area from the portion where the above negative pressure generating member containing portion communicates with the above liquid containing portion to the above supply opening to the whole fiber body.

14. A liquid container comprising a negative pressure generating member containing portion for containing a fiber body as a negative pressure generating member, an atmosphere communication port for allowing the interior of said negative pressure generating member containing portion to communicate with the atmosphere, a supply opening for supplying the liquid held by said fiber body to a liquid ejecting head and a liquid containing portion for leading out the liquid to said negative pressure generating member containing portion, said liquid containing portion and said negative pressure generating member containing portion constituting an integrally or removably formed unit, wherein said fiber body is partially subjected to surface treatment of giving lyophilic nature thereto at least on the portion where said negative pressure generating member containing portion communicates with said liquid containing portion to the whole fiber body.

15. A liquid container comprising a negative pressure generating member containing portion for

containing a fiber body as a negative pressure generating member, an atmosphere communication port for allowing the interior of said negative pressure generating member containing portion to communicate with the atmosphere, a supply opening for supplying liquid to a liquid ejecting head, a liquid containing portion for leading out the liquid to said negative pressure generating member containing portion and an atmosphere introducing channel, which is provided in the vicinity of the portion where said negative pressure generating member containing portion communicates with said liquid containing portion, for causing a gas-liquid exchange in which the liquid is led out to said negative pressure generating member containing portion subsequently after gas is introduced into said liquid containing portion, said liquid containing portion and said negative pressure generating member containing portion constituting an integrally or removably formed unit, wherein said fiber body is partially subjected to surface treatment of giving lyophilic nature thereto at least on the area corresponding to said atmosphere introducing channel to the whole fiber body.

16. The liquid container according to any one of claims 11 to 15, wherein said liquid containing portion comprises an inner bag for containing liquid, which

becomes deformed as the liquid contained therein becomes led out and thereby can produce a negative pressure, a casing for covering said inner bag, and an atmosphere communication port which can introduce atmosphere between said casing and said inner bag.

17. The liquid container according to claim 12, wherein said negative pressure generating member containing portion comprises a first fiber body on the side of said atmosphere communication port and a second fiber body on the side of said supply opening, the portion of the fiber body subjected to said partial surface treatment of giving lyophilic nature thereto being said first fiber body.

18. The liquid container according to any one of claims 13 to 15, wherein said negative pressure generating member containing portion comprises a first fiber body on the side of said atmosphere communication port and a second fiber body on the side of said supply opening, the portion of the fiber body partially subjected to said surface treatment of giving lyophilic nature thereto being said second fiber body.

19. The liquid container according to claim 18, wherein said second fiber body is subjected to said surface treatment of giving lyophilic nature thereto as

a part of the entire fiber body comprising said first and second fiber bodies, the entire second fiber body being subjected to said surface treatment of giving lyophilic nature thereto.

20. The liquid container according to any one of claims 10 to 15, wherein the portion of said fiber body subjected to surface treatment of giving lyophilic nature thereto has a wettable surface structure comprising a polymer having relatively long chain lyophilic groups and relatively short chain lyophobic groups substantially alternately.

21. The liquid container according to claim 20, wherein when said liquid is water-based liquid, said lyophilic groups are side chain groups having a polymer structure including a hydrophilic group and said lyophobic groups are side chain groups having a methyl group.

22. The liquid container according to any one of claims 10 to 15, wherein said surface treatment of giving lyophilic nature to the fiber body comprises a process of condensing a fragmented product of polymer cleavage, the polymer comprising a first group which can be subjected to cleavage and condensation and has a lyophobic group and a second group which has a

interfacial energy almost the same as the surface energy of the part of the fiber, into a polymer on the surface of the fiber.

23. The liquid container according to claim 22, wherein said condensation process comprises an annealing process for annealing the water molecules produced in the condensation after completing the evaporation of the solution in which said polymer is dissolved.

24. The liquid container according to claim 23, wherein the heating temperature in said annealing process is higher than the maximum temperature at which said fiber body is used and lower than the melting points of said fiber body and said polymer.

25. A fiber body having an olefin resin at least on its surface, said surface having a reformed portion having been subjected to surface treatment of giving hydrophilic nature thereto, and applied to a negative pressure producing portion for use in an ink jet apparatus, comprising a wettable surface structure obtained in the following steps of: attaching on the surface of said fiber a treatment agent containing a polymer, which has a hydrophilic group and a group having an interfacial energy almost the same as the

surface energy of said olefin-based fiber surface thereon, a dilute acid as a catalyst for said polymer cleavage and alcohol; subjecting said polymer to cleavage by evaporating the treatment agent attached on the surface of said fiber and allowing said dilute acid to be a concentrated acid; and condensing the product of the polymer cleavage.

26. A method of subjecting a fiber body, which is used in an ink jet apparatus as a negative pressure generating member for producing a negative pressure against an ink jet head while holding a liquid therein and supplying the liquid to said head, to surface treatment of giving lyophilic nature thereto at least on the part of the surface thereof, comprising:

a first step of providing said surface part with a liquid containing a polymer fragmented product which has a first portion with a lyophilic group and a second portion with a group having an interfacial energy different from that of said lyophilic group but almost the same as the surface energy of said surface part, the polymer fragmented product being obtained by subjecting a polymer to cleavage which has said first and second portions and is used for providing said lyophilic group to said surface part;

a second step of orientating the second portion of said polymer cleavage on said surface part toward said

surface part side and the first portion of the same in the direction different from said surface part; and

a third step of condensing at least part of said oriented portions of the polymer fragmented product on said surface part into a polymer.

27. A method of subjecting a fiber body, as a negative pressure generating member, contained in a liquid container having a supply opening for supplying liquid to a liquid ejecting head and an atmosphere communication port for allowing the interior of the liquid container to communicate with the atmosphere, besides the fiber body, to surface treatment of giving lyophilic nature thereto on the portion corresponding to a supply opening and the periphery thereof, comprising the steps of:

injecting the above lyophilic treatment agent into the vicinity of the central portion of the above fiber body by using a syringe containing the above lyophilic treatment agent and inserting the needle of the syringe into the above fiber body through the above atmosphere communication port; and

sucking up the above lyophilic treatment agent through the above supply opening and discharging the same before the above lyophilic treatment agent reaches the inner surface of the above liquid container.

28. A method of producing a fiber body which has an olefin resin at least on its surface, has part of its surface reformed to be hydrophilic, and is applied to a negative pressure producing portion for use in an ink jet apparatus, comprising the steps of:

forming a fiber surface having a liquid, which contains polyalkylsiloxane having a hydrophilic group, acid and alcohol, attached thereon; and

heating and drying the liquid attached on said fiber surface at temperatures higher than room temperature and lower than the melting point of the olefin resin.

29. A method of producing a fiber body which has an olefin resin at least on its surface, has part of its surface reformed to be hydrophilic, and is applied to a negative pressure producing portion for use in an ink jet apparatus, comprising the steps of:

forming a fiber surface having a liquid, which contains polyalkylsiloxane having a hydrophilic group, acid and alcohol and water, attached thereon; and

drying the liquid attached on said fiber surface and, during the drying process, orientating said hydrophilic group in the direction opposite to said fiber surface so as to subject the fiber body to surface treatment of giving lyophilic nature thereto.

30. A method of reforming the surface of fiber constituting an ink absorber which is applied to a negative pressure producing portion for use in an ink jet apparatus, comprising:

a first step of providing a liquid, in which a dilute acid, a volatility and affinity-to-fiber surface improver, and a treatment agent containing a polymer comprising a second portion having a group of which interfacial energy is almost the same as the surface energy of said fiber surface and a first portion having a group of which interfacial energy is different form said interfacial energy are dissolved, on said fiber surface;

a second step of removing said affinity improver by applying heat to said fiber surface;

a third step of subjecting the polymer in said treatment agent to cleavage by making said dilute acid to be a concentrated one; and

a fourth step of condensing said polymer having been subjected to cleavage on said fiber surface while orientating the second portion of said polymer toward said fiber surface and the first portion of the same in the direction different from said fiber surface.

31. A method of reforming the surface of a fiber constituting an ink absorber which is applied to a negative pressure producing portion for use in an ink

jet apparatus by introducing a functional group therein, comprising the step of condensing a polymer fragmented product comprising a second portion having a group of which interfacial energy is almost the same as the surface energy of said fiber surface and a first portion having said functional group in state where said polymer fragmented product is oriented based on the affinity to said fiber surface of the group of which interfacial energy is almost the same as the surface energy of said surface, said polymer fragmented product being obtained by subjecting a polymer compound comprising said first portion and said second portion to cleavage.

32. A fiber, which constitutes an ink absorber applied to a negative pressure producing portion for use in an ink jet apparatus, having a reformed surface with a functional group introduced thereon, wherein the surface of said fiber has a condensate of a polymer fragmented product attached thereon, said condensate being obtained by condensing the polymer fragmented product comprising a second portion having a group of which interfacial energy is almost the same as the surface energy of said fiber surface and a first portion having said functional group in state where said polymer fragmented product is oriented based on the affinity to said fiber surface of the group of

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which interfacial energy is almost the same as the surface energy of said surface, said polymer fragmented product being obtained by subjecting a polymer compound comprising said first portion and said second portion to cleavage.

33. A fiber, which constitutes an ink absorber applied to a negative pressure producing portion for use in an ink jet apparatus, having a periphery portion consisting of a curved surface of which cross section has a periphery in the form of a closed ring, having on said periphery portion at least a portion coated with a film which contains a polymer and surrounds the periphery of said periphery portion in the form of a closed ring, and having been subjected to surface reforming on the surface portion coated with the film containing said polymer, wherein said polymer is a material which is soluble in a solvent or of which main skeleton is different from said fiber surface and comprises a first portion having a functional group used for reforming said surface and a second portion having a group of which interfacial energy is different from that of said functional group but almost the same as the surface energy of said surface, said second portion being oriented toward said surface, said first portion being oriented in the direction different from said surface.

34. A method of reforming the surface of a fiber, which constitutes an ink absorber applied to a negative pressure producing portion for use in an ink jet apparatus, in which the hydrophobic surface of said fiber is reformed into a hydrophilic one, comprising the step of attaching on said hydrophobic surface a polymer fragmented product comprising a hydrophilic group and a hydrophobic group in such a manner as to orientate said hydrophobic group toward the surface of said hydrophobic group and said hydrophilic group in the direction different from said hydrophobic group, said polymer fragmented product being obtained by subjecting a polymer compound comprising said hydrophilic group and said hydrophobic group.

35. The method of reforming the surface of a fiber according to claim 34, wherein said polymer fragmented products on said hydrophobic surface are condensed each other.

36. The method of reforming the surface of a fiber according to claim 34 or 35, wherein said step comprises the sub-steps of: applying a liquid containing said polymer compound and a dilute acid on said hydrophobic surface; allowing said dilute acid to be a concentrated acid on said hydrophobic surface; and subjecting said polymer compound to cleavage to obtain

polymer fragmented products.

37. The method of reforming the surface of a fiber according to claim 34, wherein said step uses, as said liquid, a liquid containing water and a nonaqueous solvent having a vapor pressure lower than that of water, thereby, during the drying process of said liquid on said hydrophobic surface, said nonaqueous solvent evaporates before water does and there arises a state where a film of water exists on said hydrophobic surface.

38. The method of reforming the surface of a fiber according to claim 34, wherein said liquid has a composition which allows said hydrophobic surface to be wettable by said liquid on a desired portion.

39. The method of reforming the surface of a fiber according to claim 34, wherein said hydrophobic surface of said fiber consists of an olefin resin.

40. The method of reforming the surface of a fiber according to claim 34, wherein said polymer compound is polyalkylsiloxane having a hydrophilic group.

41. The method of reforming the surface of a

fiber according to claim 40, wherein said polymer compound has a polyalkylene oxide chain as said hydrophilic group.

42. The method of reforming the surface of a fiber according to claim 40, wherein polyalkylsiloxane having said hydrophilic group is (polyoxyalkylene)-poly(dimethylsiloxane).

43. A method of subjecting a porous material, which constitutes an ink absorber applied to a negative pressure producing portion for use in an ink jet apparatus, to surface reforming on part of its surface, wherein surface reforming is performed by condensing on said part of the surface a cleaved polymer which is oriented based on the affinity of the interfacial energy of a group similar to the surface energy of said part of the surface of said porous material.

44. A method of subjecting at least a part of a surface of a fiber, which constitutes an ink absorber applied to a negative pressure producing portion for use in an ink jet apparatus, to surface reforming using a liquid polymer, comprising a condensation step of condensing a polymer fragmented product, which comprises a first group which can be subjected to cleavage and condensation and has a functional group

and a second group of which interfacial energy is almost the same as the surface energy of the part of the surface of the above fiber, into a polymer on the above part of the surface.

45. A fiber having a hydrophobic surface part of which has been subjected to surface reforming into a hydrophilic surface and constituting an ink absorber which is applied to a negative pressure producing portion for use in an ink jet method, wherein a polymer fragmented product having a hydrophilic group and a hydrophobic group is attached on said hydrophobic surface in such a manner as that said hydrophobic group is oriented toward the surface of said hydrophobic group and said hydrophilic group is oriented in the direction different from said hydrophobic group, said polymer fragmented product being obtained by subjecting a polymer compound comprising said hydrophilic group and said hydrophobic group.

46. The fiber according to claim 45, comprising a core portion and a surface layer covering said core portion, each of said core portion and said surface layer consisting of an olefin resin, the melting point of the resin constituting said core portion being higher than that of the resin constituting said surface layer.

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47. The fiber according to claim 46, wherein the resin constituting said core portion is polypropylene and the resin constituting said surface layer is polyethylene.

48. The fiber according to claim 47, wherein said core portion is partially exposed to the outer wall surface and said polymer fragmented products are attached both on the surface of the exposed portion of said core portion and on the surface of said surface layer.

49. The fiber according to any one of claims 45 to 48, wherein said polymer compound is polyalkylsiloxane having a hydrophilic group.

50. The fiber according to claim 49, wherein said polymer compound has a polyalkylene oxide group as said hydrophilic group.

51. The fiber according to any one of claims 45 to 48, wherein polyalkylsiloxane having said hydrophilic group is (polyoxyalkylene)-poly(dimethylsiloxane).

52. A wettable surface structure constituting an ink absorber which is applied to a negative pressure

producing portion for use in an ink jet apparatus and holding a liquid supplied thereto, comprising a polymer having relatively long chain lyophilic groups and relatively short chain lyophobic groups alternately.

53. A fiber body which has an olefin resin at least on its surface, has part of its surface reformed to be hydrophilic, and is applied to a negative pressure producing portion for use in an ink jet apparatus, comprising a wettable surface structure having relatively long chain hydrophilic groups and relatively short chain hydrophobic groups alternately on said fiber surface, the wettable surface structure being obtained by the following steps of: forming a fiber surface having a treatment liquid attached thereon, the treatment liquid comprising a polymer having a hydrophilic group and a group of which interfacial energy is almost the same as the surface energy of the fiber surface comprising said olefin resin as a constituent, a dilute acid as a catalyst for said polymer cleavage and alcohol; subjecting said polymer to cleavage by evaporating the treatment liquid attached on said fiber surface and allowing said dilute acid to be changed to a concentrated acid; and condensing the polymer cleavage products.

54. A fiber absorber for use in liquid ejection

which consists of an olefin resin and is contained in a liquid container for holding a liquid supplied to a liquid ejecting head under a negative pressure, comprising at least a portion having been subjected to surface treatment of giving lyophilic nature thereto on its surface, said portion having been subjected to surface treatment of giving lyophilic nature thereto having a first lyophilic area relatively superior in lyophilic nature and a second lyophilic area relatively inferior to the above first lyophilic area in lyophilic nature.

55. A fiber absorber, as an assembly of numbers of fibers, for use in liquid ejection which has a polymer compound provided on at least the part of its surface which should be subjected to surface treatment of giving lyophilic nature thereto and is used for holding a liquid supplied to a liquid ejecting head under a negative pressure, wherein said polymer compound includes a first portion having a lyophilic group and a second portion having a group of which interfacial energy is lower than that of said lyophilic group but almost the same as the surface energy of said surface part and a portion having been subjected to surface treatment of giving lyophilic nature thereto is obtained by orientating said second portion toward said part of the surface and said first portion in the

direction different from said part of the surface, said portion having been subjected to surface treatment of said part of the surface having a first lyophilic area relatively superior in lyophilic nature and a second lyophilic area relatively inferior to the above first lyophilic area in lyophilic nature.

56. The fiber absorber for use in liquid ejection according to claim 55, wherein said polymer compound is provided in such a manner as to coat at least part of the periphery of said fiber.

57. The fiber absorber for use in liquid ejection according to claim 55, wherein said fiber has an olefin resin at least on its surface.

58. The fiber absorber for use in liquid ejection according to claim 57, wherein said polymer is polyalkylsiloxane having a lyophilic group.

59. The fiber absorber for use in liquid ejection according to claim 57 or 58, wherein said fiber comprises a core portion and a surface layer covering said core portion, the melting point of the resin constituting said core portion being higher than that of the resin constituting said surface layer.

60. The fiber absorber for use in liquid ejection according to claim 59, wherein the resin constituting said core portion is polypropylene and the resin constituting said surface layer is polyethylene.

61. A fiber absorber, as an assembly of numbers of fibers, for use in liquid ejection which has a lyophobic surface at least part of which is reformed into a lyophilic surface and is used for holding a liquid supplied to a liquid ejecting head under a negative pressure, wherein said lyophilic portion is obtained by attaching on said lyophobic surface a polymer fragmented product having both lyophilic and lyophobic groups, which is produced by subjecting a polymer having both lyophilic and lyophobic groups to cleavage, in such a manner as to orient said lyophobic group toward the surface and said lyophilic group in the direction different from that of said lyophobic group, said lyophilic portion having a first lyophilic area relatively superior in lyophilic nature and a second lyophilic area relatively inferior to the above first lyophilic area in lyophilic nature.

62. A fiber absorber, as an assembly of numbers of fibers, for use in liquid ejection which has a olefin resin at least on its surface and a reformed surface obtained by subjecting at least part of said

surface to surface reforming of giving lyophilic nature thereto and is used for holding a liquid supplied to a liquid ejecting head under a negative pressure, comprising a wettable surface structure having relatively long chain hydrophilic groups and relatively short chain hydrophobic groups alternately on said fiber surface, the wettable surface structure being obtained by the following steps of:

forming a fiber surface having a treatment liquid attached thereon, the treatment liquid comprising a polymer having a hydrophilic group and a group of which interfacial energy is almost the same as the surface energy of the fiber surface comprising said olefin resin as a constituent, a dilute acid as a catalyst for said polymer cleavage and alcohol;

subjecting said polymer to cleavage by evaporating the treatment liquid attached on said fiber surface and allowing said dilute acid to be changed to a concentrated acid; and condensing the polymer cleavage products, said wettable surface structure having a first lyophilic area relatively superior in lyophilic nature and a second lyophilic area relatively inferior to the above first lyophilic area in lyophilic nature.

63. A liquid container, comprising a container casing having a supply opening for supplying a liquid to a liquid ejecting head and an atmosphere

communication port for communicating with the atmosphere; and a fiber absorber for use in liquid ejection according to claim 54 which is contained in said container casing to hold the liquid therein utilizing a negative pressure.

64. A liquid container, comprising a container casing having a supply opening for supplying a liquid to a liquid ejecting head and an atmosphere communication port for communicating with the atmosphere; and a fiber absorber which consists of an olefin resin, has been subjected to surface treatment of giving lyophilic nature thereto at least on part thereof in such a manner as to be allowed to have stronger lyophilic nature as it becomes away from said supply opening, and is contained in the above container casing to hold the liquid therein utilizing a negative pressure.

65. A liquid container, comprising a container casing having a supply opening for supplying a liquid to a liquid ejecting head and an atmosphere communication port for communicating with the atmosphere; and a fiber absorber which consists of an olefin resin, has been subjected to surface treatment of giving lyophilic nature thereto at least in the vicinity of said supply opening in such a manner as to

be allowed to have weaker lyophilic nature as it becomes away from the above supply opening, and is contained in the above container casing to hold the liquid therein using a negative pressure.

66. A liquid container, comprising a negative pressure generating member containing chamber which has a supply opening for supplying a liquid to a liquid ejecting head and an atmosphere communication port for communicating with the atmosphere and contains therein a fiber absorber consisting of an olefin resin for holding a liquid under negative pressure; and a liquid containing chamber which communicates with said negative pressure generating member containing chamber and has a liquid containing portion substantially in a sealed state except the portion communicating with said negative pressure generating member containing chamber, said fiber absorber existing over said communication portion as a layer intersecting the gravity direction and having a portion having been subjected to surface treatment of giving lyophilic nature thereto in such a manner as to be allowed to have weaker lyophilic nature on its upper portion.

67. The liquid container according to claim 66, wherein said negative pressure generating member containing chamber and said liquid containing chamber

are separable from each other at said communication portion.

68. The liquid container according to claim 66, wherein said liquid containing portion has a bag capable of producing a negative pressure when it is deformed, said bag containing a liquid.

69. A method of producing a fiber absorber, as an assembly of numbers of fibers, for use in liquid ejection which has a lyophilic group provided on at least the part of its surface which should be subjected to surface treatment of giving lyophilic nature thereto and is used for holding a liquid supplied to a liquid ejecting head under a negative pressure, comprising:

a first step of providing a liquid, which contains a polymer including a first portion having the above lyophilic group and a second portion having a group of which interfacial energy is different from that of the above lyophilic group but is almost the same as the surface energy of the above surface part to be subjected the above surface treatment, to the part which should be subjected to surface treatment of giving lyophilic nature thereto in such a manner as to form a first area where the density of the liquid provided is relatively high and a second area where the density of the same is relatively low; and

a second step of obtaining a first lyophilic area relatively superior in lyophilic nature and a second lyophilic area relatively inferior to the above first lyophilic area in lyophilic nature in such a manner as to orient the above second portion of the above polymer toward the above surface part and the above first portion of the same in the direction different from the above surface part.

70. A method of producing a fiber absorber, as an assembly of numbers of fibers, for use in liquid ejection which has a lyophilic group provided on at least the part of its surface which should be subjected to surface treatment of giving lyophilic nature thereto and is used for holding a liquid supplied to a liquid ejecting head under a negative pressure, comprising:

a first step of providing said part of the surface with a liquid containing a polymer fragmented product which has a first portion with a lyophilic group and a second portion with a group having an interfacial energy different from that of said lyophilic group but almost the same as the surface energy of said part of the surface, said polymer fragmented product being obtained by subjecting a polymer to cleavage which has said first and second portions in such a manner as to form a first area where the density of the liquid provided is relatively high and a second area where the

density of the same is relatively low;

a second step of obtaining a first lyophilic area relatively superior in lyophilic nature and a second lyophilic area relatively inferior to said first lyophilic area in lyophilic nature in such a manner as to orient the second portion of said polymer fragmented product toward said part of the surface and said first portion of the same in the direction different from said part of the surface; and

a third step of condensing at least part of the oriented portions of said polymer fragmented product on said part of the surface into a polymer.

71. The method of producing a fiber absorber for use in liquid ejection according to claim 69 or 70, wherein said first step comprises immersing in said liquid only said first area of said part of the surface of said fiber absorber for use in liquid ejection.

72. The method of producing a fiber absorber for use in liquid ejection according to claim 69 or 70, wherein said first step comprises the following sub-steps of:

uniformly providing said liquid to the entire portion of said part of the surface of said fiber absorber for use in liquid ejection; and compressing the area farthest away from said first area of said

fiber absorber for use in liquid ejection so as to move said liquid toward said first area.

73. The method of producing a fiber absorber for use in liquid ejection according to claim 69 or 70, wherein said first step comprises the following sub-steps of: uniformly providing said liquid to the entire portion of said part of the surface of said fiber absorber for use in liquid ejection; and moving the liquid provided on the area farthest from said first area toward said first area by the centrifugal force.

74. The method of producing a fiber absorber for use in liquid ejection according to claim 69 or 70, wherein said first step comprises the following sub-steps of: uniformly providing said liquid to the entire portion of said part of the surface of said fiber absorber for use in liquid ejection; and moving the liquid provided on the area farthest from said first area toward said first area by the air flow.

75. A method of producing a fiber absorber, as an assembly of numbers of fibers, for use in liquid ejection which has an olefin resin at least on its surface, has a lyophilic group provided at least on the part of said surface, and is used for holding a liquid supplied to a liquid ejecting head under a negative

pressure, comprising:

a first step of providing said part of the surface with a liquid in which a polymer of alkylsiloxane including a lyophilic group is dissolved in such a manner as to form a first area where the density of the liquid provided is relatively high and a second area where the density of the same is relatively low; and

a second step of obtaining a first lyophilic area relatively superior in lyophilic nature and a second lyophilic area relatively inferior to said lyophilic area in lyophilic nature in such a manner as to orient said alkylsiloxane toward said part of the surface and said lyophilic group in the direction different from said part of the surface.

76. A method of producing a fiber absorber, as an assembly of numbers of fibers, for use in liquid ejection which has an olefin resin at least on its surface, has a lyophilic group provided at least on the part of said surface, and is used for holding a liquid supplied to a liquid ejecting head under a negative pressure, comprising:

a first step of providing said part of the surface with a liquid in which a polymer fragmented product obtained by subjecting a polymer of alkylsiloxane including a lyophilic group to cleavage is dissolved in such a manner as to form a first area where the density

of the liquid provided is relatively high and a second area where the density of the same is relatively low; and

a second step of obtaining a first lyophilic area relatively superior in lyophilic nature and a second lyophilic area relatively inferior to said first lyophilic area in lyophilic nature in such a manner as to condense said polymer fragmented product on said part of the surface, in addition, to orient said alkylsiloxane toward said part of the surface and said lyophilic group in the direction different from said part of the surface.

77. The method of producing a fiber absorber for use in liquid ejection according to claim 75 or 76, wherein said first step comprises immersing in said liquid only said first area of said part of the surface of said fiber absorber for use in liquid ejection.

78. The method of producing a fiber absorber for use in liquid ejection according to claim 75 or 76, wherein said first step comprises the following sub-steps of: uniformly providing said liquid to the entire portion of said surface of said fiber absorber for use in liquid ejection; and compressing the area farthest from said first area of said fiber absorber for use in liquid ejection so as to move said liquid toward said

first area.

79. The method of producing a fiber absorber for use in liquid ejection according to claim 75 or 76, wherein said first step comprises the following sub-steps of: uniformly providing said liquid to the entire portion of said surface of said fiber absorber for use in liquid ejection; and moving the liquid provided on the area farthest from said first area toward said first area by the centrifugal force.

80. The method of producing a fiber absorber for use in liquid ejection according to claim 75 or 76, wherein said first step comprises the following sub-steps of: uniformly providing said liquid to the entire portion of said surface of said fiber absorber for use in liquid ejection; and moving the liquid provided on the area farthest from said first area toward said first area by the air flow.

81. A method of producing a fiber absorber, as an assembly of numbers of fibers, for use in an ink jet apparatus which has an olefin resin at least on its surface, has a lyophilic group provided at least on the part of said surface, and is used for holding a liquid supplied to a liquid ejecting head under a negative pressure, comprising the steps of:

forming a fiber surface having a liquid, which contains polyalkylsiloxane having a lyophilic group, acid and alcohol, attached thereon in such a manner as to form a first area where the density of the liquid provided is relatively high and a second area where the density of the same is relatively low; and

obtaining a first lyophilic area relatively superior in lyophilic nature and a second lyophilic area relatively inferior to said first lyophilic area in lyophilic nature in such a manner as to heat and dry the liquid attached on said fiber surface at temperatures higher than room temperature and lower than the melting point of the above olefin resin.

82. A method of producing a fiber absorber, as an assembly of numbers of fibers, for use in liquid ejection which has an olefin resin at least on its surface, has a lyophilic group provided at least on the part of said surface, and is used for holding a liquid supplied to a liquid ejecting head under a negative pressure, comprising the steps of:

forming a fiber surface having a liquid, which contains polyalkylsiloxane having a lyophilic group, acid and alcohol, attached thereon in such a manner as to form a first area where the density of the liquid attached is relatively high and a second area where the density of the same is relatively low; and

obtaining a first lyophilic area relatively superior in lyophilic nature and a second lyophilic area relatively inferior to said first lyophilic area in lyophilic nature in such a manner as to dry the liquid attached on said fiber surface and, during the drying process, orientate said lyophilic group in the direction opposite to said fiber surface so as to subjecting the fiber surface to surface treatment of giving lyophilic nature thereto.

83. The method of producing a fiber absorber for use in liquid ejection according to claim 81 or 82, wherein said step of forming a fiber surface comprises immersing only said first area in said liquid.

84. The method of producing a fiber absorber for use in liquid ejection according to claim 81 or 82, wherein said step of forming a fiber surface comprises the following sub-steps of: uniformly providing said liquid to the entire portion of said fiber absorber for use in liquid ejection which should be provided with lyophilc nature; and compressing the area farthest from said first area so as to move said liquid toward said first area.

85. The method of producing a fiber absorber for use in liquid ejection according to claim 81 or 82,

wherein said step of forming a fiber surface comprises the following sub-steps of: uniformly providing said liquid to the entire portion of said fiber absorber for use in liquid ejection which should be provided with lyophilc nature; and moving the liquid provided on the area farthest from said first area toward said first area by the centrifugal force.

86. The method of producing a fiber absorber for use in liquid ejection according to claim 81 or 82, wherein said step of forming a fiber surface comprises the following sub-steps of: uniformly providing said liquid to the entire portion of said fiber absorber for use in liquid ejection which should be provided with lyophilc nature; and moving the liquid provided on the area farthest from said first area toward said first area by the air flow.

87. A method of subjecting a fiber absorber, as an assembly of numbers of fibers, for use in liquid ejection which has a lyophobic surface and is used for holding a liquid supplied to a liquid ejecting head under a negative pressure to surface reforming so as to reform said lyophobic surface into a lyophilic one, comprising a step of attaching on said lyophobic surface a polymer fragmented product having both lyophilic and lyophobic groups, which is produced by

subjecting a polymer having both lyophilic and lyophobic groups to cleavage, in such a manner as to orient said lyophobic group toward the surface and said lyophilic group in the direction different from that of said lyophobic group so as to have a first lyophilic area relatively superior in lyophilic nature and a second lyophilic area relatively inferior to the above first lyophilic area in lyophilic nature.

88. A method of subjecting a fiber absorber, as an assembly of numbers of fibers, for holding a liquid supplied to a liquid ejecting head under a negative pressure to surface reforming on part of its surface, wherein the surface reforming is performed in such a manner as to condense a cleavage polymer, which has been oriented in accordance with the affinity of the interfacial energy of a group similar to the surface energy of the part of the surface of the above fiber, on said part of the surface, so as to have a first lyophilic area relatively superior in lyophilic nature and a second lyophilic area relatively inferior to the above first lyophilic area in lyophilic nature.

89. A method of subjecting a fiber absorber, as an assembly of numbers of fibers, for holding a liquid supplied to a liquid ejecting head under a negative pressure to surface reforming on part of its surface

using a liquid polymer, comprising a condensation step of condensing a polymer fragmented product, which has a first group which can be subjected to cleavage and condensation and has a lyophilic group and a second group of which interfacial energy is almost the same as the surface energy of the part of the surface of the above fiber, into a polymer on the above part of the surface, so as to have a first lyophilic area relatively superior in lyophilic nature and a second lyophilic area relatively inferior to the above first lyophilic area in lyophilic nature.

90. A wettable surface structure of a fiber assembly used for holding a liquid to be supplied to a liquid ejecting head under negative pressure, comprising a lyophilic portion including a polymer having relatively long chain lyophilic groups and relatively short chain lyophobic groups alternately, the above lyophilic portion having a first lyophilic area relatively superior in lyophilic nature and a second lyophilic area relatively inferior to the above first lyophilic area in lyophilic nature.